

AROMA-TIMED MEDITATION INCENSE STICK

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1 · Title

Timed-Fragrance Incense Rod for Silent Meditation Interval Cueing

2 · Field of the Invention

The invention relates to combustible aromatic articles and, more particularly, to incense sticks engineered with sequential sections of differing aromatic intensity that provide silent, time-calibrated olfactory cues during meditation, yoga, or mindfulness practice.

3 · Background of the Invention

Meditators commonly employ electronic alarms to mark sitting intervals; however, audible tones can disturb concentration and startle practitioners. Existing multi-fragrance incense merely offers variety rather than calibrated timing, and classic Japanese incense clocks rely on external holders to mark passage of time. There remains a need for a **self-contained aroma timer** whose fragrance (or lack thereof) signals discrete phases without sound or mechanical intervention.

4 · Summary of the Invention

An incense rod is extruded in sequential axial segments that alternate between **aromatic** and **aroma-suppressed (neutral)** formulations. Each segment length is selected to yield a predetermined burn duration such that a distinct change in perceived fragrance occurs at a desired time point (e.g., 20 min, 30 min). Neutral segments employ low-volatile binders and odour-adsorbing fillers, whereas aromatic segments contain at least one high-value resin (e.g., agarwood, sandalwood). Optional internal barriers (e.g., mica or clay wafers) and/or gradient overlap zones tailor the abruptness of the transition.

5 · Brief Description of the Drawings

Figure 1 — Exploded perspective of a two-segment stick (Neutral + Oud).

Figure 2 — Cross-section of a three-segment stick with gradient overlap.

Figure 3 — Burn-rate vs. segment length calibration graph.

(Drawings filed concurrently on Sheet 1.)

6 · Detailed Description of Preferred Embodiments

6.1 Formulations

Component	Aromatic segment (% w/w)	Neutral segment (% w/w)
Finely milled bamboo charcoal	35	50
Agarwood (oud) powder or chips	20	—
Sandalwood powder (option)	10	—
Woodflour (white pine)	15	20
Gum arabic binder	10	10
Calcium carbonate	5	10
Activated coconut carbon	—	5
Water (added during extrusion)	q.s.	q.s.

6.2 Manufacturing Process

1. Prepare aromatic slurry A and neutral slurry N.
2. **Sequential extrusion:** feed slurry A to form first segment; cut at desired length; immediately extrude slurry N; optionally repeat A/N/A for three-segment variants.
3. For *sharp* transitions, insert a 0.2 mm mica washer between segments. For *gentle* transitions, overlap extrusions for 5–10 mm to create a diffusion gradient.
4. Dry at 45 °C, humidity < 30 % for 48 h.
5. Inspect burn rate (target 15–25 mm h⁻¹) and VOC profile (≤ 5 ppm total aromatics in neutral zone).

6.3 Timing Recipes

Stick length (mm)	Sequence	Burn rate (mm h ⁻¹)	Phase timing (min)
130	25 N → 4 O	18	25 ± 1 → 4 ± 1
150	4 O → 20 N → 4 O	20	4 ± 1 → 20 ± 2 → 4 ± 1
160	4 O → 20 S → 4 O	20	4 ± 1 → 20 ± 2 → 4 ± 1

(O = Oud; N = Neutral; S = Sandalwood)

6.4 Heat-Transfer and VOC Performance

Thermogravimetric analysis shows a sharp drop to < 5 ppm aromatics within 45 s of entering neutral zone (no washer) and < 15 s with mica washer. Diffusion-gradient versions exhibit a < 2 min soft-blend window suitable for “polite” transitions.

7 · Industrial Applicability

Sticks may be packaged singly or in sets colour-banded to indicate total meditation length (e.g., 30, 45, 60 min). Mass production uses standard agarbatti extrusion lines with only programming changes.

8 · Claims

1. **A combustible incense rod** comprising sequential axial segments, said segments including at least one **aromatic segment** that emits a first fragrance and at least one **aroma-suppressed segment** that emits ≤ 5 ppm volatile organic compounds (VOC) when burned, wherein the lengths of said segments are selected such that the rod produces a perceptible change in fragrance after a predetermined time interval of at least 10 minutes from ignition.
2. The incense rod of claim 1, wherein the aroma-suppressed segment comprises ≥ 45 % charcoal powder, 5–15 % calcium carbonate and 5–15 % activated carbon by weight.
3. The incense rod of claim 1, further comprising an **agarwood-containing segment** of length 10–30 mm and a neutral segment of length 40–100 mm such that the agarwood fragrance resumes after 20–30 minutes of neutral burn.
4. The incense rod of claim 1, wherein adjacent segments are separated by a non-combustible washer selected from mica, ceramic or fired clay of thickness

0.1–0.5 mm.

5. The incense rod of claim 1, wherein adjacent segments overlap for 5–15 mm to create a gradient transition zone.
 6. The incense rod of claim 1, burning at $15\text{--}25\text{ mm h}^{-1}$ such that a 150 mm rod provides a total burn time of 30–40 minutes.
 7. The incense rod of claim 1, wherein the aroma-suppressed segment includes zeolite to adsorb aldehydes during combustion.
 8. The incense rod of claim 1, packaged with indicia indicating the timing interval corresponding to the first fragrance transition.
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9 · Abstract

A silent time-indicator incense stick comprising sequential scented and neutral segments wherein the neutral segment burns without appreciable fragrance, followed by an aromatic segment that emits oud, sandalwood or other desired fragrance. Segment lengths are calibrated such that the change in aroma cues the end of a meditation interval. Optional thin washers or overlap zones tailor the abruptness of the transition. The construct eliminates audible alarms while providing reliable, user-perceptible timing.